

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 – 4. (Canceled)

5. (Previously presented) A method for integrating applications hosted at different enterprises separated by at least one firewall, the method comprising steps of:

- receiving high level business data from a source application program at an agent device operating as a spoke in a first hub and spoke integration system, wherein the agent device comprises an encryption engine;

- using the agent device for encoding the high level business data according to a message queuing protocol to provide an MQ message to an MQ server operating as a hub in a second hub and spoke integration system separated from the first hub and spoke integration system by the Internet;

- using an encryption engine integrated into the agent device for encrypting the MQ message using Hyper-Text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message;

- using the first queue manager for storing the encrypted MQ message for delivery to the MQ server until said MQ server is ready; and

- transmitting, via the Internet using HTTP and MQ Series Internet Passthrough (MQ IPT), the encrypted MQ message to a the MQ server;

- using a queue manager at the second hub and spoke integration system for decrypting the encrypted MQ message to produce a decrypted MQ message;

- using a second agent device for decoding the decrypted MQ message to recover the high level business data;

- wherein the high level business data passes through a first demilitarized zone in the first

hub and spoke integration system and a second demilitarized zone in the second hub and spoke integration system in order to reach the MQ server;

wherein the first and second demilitarized zones each comprise at least one firewall separating its resident queue manager from the Internet;

using the MQ server for processing of the high level business data when received.

6 -7. (Canceled)

8. (Previously presented) The method of claim 5 further comprising maintaining a record of messages received from the source application program.

9. (Previously presented) The method of claim 8 wherein the record of the messages received from the source application program comprises information on a number of messages received.

10. (Previously presented) The method of claim 8 wherein the record of the messages received from the source application program comprises information on type of messages received.

11-17 (canceled)

18. (Previously presented) A method for transmitting high-level business data in real time to one or more enterprises, the method comprising:

receiving via the Internet and through firewalls, at a first agent acting as a spoke in a first hub and spoke integration system, from an application, an encrypted MQ message comprising high level business data from a source application and a request to process data by a server acting as a hub in a second hub and spoke integration system;

relaying the encrypted MQ message to a first queue manager for decoding the encrypted MQ message using a message queuing protocol located at said first queue manager;

using at the first queue manager for decrypting the MQ message using a Hyper-Text

Transport Protocol Secure (HTTPS) security protocol;
storing the decrypted MQ message; and
transmitting, via the Internet using HTTP, and MQSeries Internet Passthrough(MQ IPT), and through the firewalls at each end of the Internet, the encrypted MQ message to a first queue manager for retransmission at a time when the network is suitable for transporting the message to the server.

19. (Previously presented) The method of claim 18, wherein the high-level data comprises customer information.

20-22. (Canceled)

23. (Previously presented) A system for integrating applications in different enterprises separated by at least one firewall, the system comprising:

- a first demilitarized zone comprising at least one firewall separating a first local area network from the Internet;

- a second demilitarized zone comprising at least one firewall separating a second local area network from the Internet;

- wherein each local area network comprises:

- a memory device comprising a software agent configured for receiving high level business data from a source application;

- an encryption engine integrated into an agent device for encrypting the MQ message using Hyper-Text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message;

- a queue manager for receiving the encrypted high level business data and for storing the high level business data for delivery to a target server with instructions to transmit the data when the target server is ready to process the data; and

- an I/O interface for transmitting, via the Internet using HTTP, and MQSeries Internet

Passthrough (MQ IPT), the encrypted high level business data to the target server acting as a hub in another hub and spoke integration system; and running the target application, wherein the high level business data and the target server are separated by the first and second demilitarized zones.

24. (Previously presented) The system of claim 23, further comprising a protocol for telling a sender to stop sending messages so that it can perform bookkeeping functions.

25. (Previously presented) The system of claim 23, wherein the encryption engine comprises a secure sockets layer protocol.

26. (Currently amended) A non-transitory computer readable storage medium comprising code that, when executed, causes a computer to:

- receiving at an agent acting as a spoke in a first hub and spoke integration system, high level business data from a source application program;

- using an encryption engine integrated into the agent for encoding the high level business data according to a message queuing protocol to provide an MQ message;

- encrypting the MQ message using Hyper-Text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message; and

- transmitting, via the Internet using HTTP, and MQSeries Internet Passthrough, and through the firewalls at each end of the Internet, the encrypted MQ message to a server, acting as a hub in a second hub and spoke integration and running a destination application program for processing of the high level business data;

- wherein the high level business data passes through a first demilitarized zone in the first hub and spoke integration system and a second demilitarized zone in the second hub and spoke integration system in order to reach the server;

- wherein the first and second demilitarized zones each comprise at least one firewall separating its server from the Internet.

27. (Currently amended) The non-transitory computer readable storage medium of claim 26 further comprising an instruction for storing the encrypted MQ message in a queue manager prior to transmitting the encrypted MQ message.

28. (Currently amended) The non-transitory computer readable storage medium of claim 26 further comprising an instruction for sending a message to the source application program instructing the source application program to stop sending data.

29. (Currently amended) The non-transitory computer readable storage medium of claim 26 further comprising an instruction for maintaining a record of the messages received from the source application program.

30. (Currently amended) The non-transitory computer readable storage medium of claim 26 wherein the record of the messages received from the source application program comprises information on the number of messages received.